AMENDMENT TO THE SPECIFICATION

Please replace paragraph [0022] of the patent application publication 2005/0125194 with the following:

The distance between the center of gravity of actuator mechanism 116 and pivot shaft 120 in high track density systems is too low to measure by traditional mechanical methods. Thus, the present invention is a method for calculating the mass unbalance of the system when the actuator mechanism 116 is assembled into disc drive 100 (at drive level) using a system of equations. The present invention can be utilized in both high track density systems as well as low track density systems. FIG. 2 illustrates first coordinate system 240 and second coordinate system 242 used in calculating the mass unbalance of actuator mechanism 116 of disc drive 100. First coordinate system 240 has first x-axis X_1 and first y-axis Y_1. First coordinate system 240 is fixed. However, the location of the center of gravity changes in first coordinate system 240 according to the particular track actuator 116 locates slider 110. Thus, second coordinate system 242, which is constant relative to the position of the actuator mechanism, is introduced because the location of center of gravity in second coordinate system 242 is constant. Second coordinate system 242 has second x-axis X_2 and second y-axis Y_2. First y-axis Y_1 intersects pivot shaft 120 of actuator mechanism 116 and is parallel to a longitudinal axis 241 of disc drive 100. First x-axis X_1 intersects pivot shaft 120 and is normal to first y-axis Y_1. Second y-axis Y_2 intersects pivot shaft 120 of actuator mechanism 116 and is parallel to a longitudinal axis of track accessing arm 114. Second x-axis X_2 intersects pivot shaft 120 is normal to second y-axis Y_2.

Please replace paragraph [0030] of the patent application publication 2005/0125194 with the following:

Step 316 of flowchart 300 can be the plurality of steps illustrated in flowchart 516 of FIG. 5. Flowchart 516 further describes the step of calculating the center of gravity in second x and y components with respect to second coordinate system 242 of actuator mechanism 116 in FIG. 2. In step 518, first angle βP extending between first y-axis Y_1 and line 244 is calculated. Line 244

extends from pivot shaft 120 to central axis 109 of disc pack 106. First angle β_P is calculated with the following equation: